CLAIMS

1. A tumor targeting unit comprising a peptide sequence:

$$Cy\text{-}Rr_n\text{-}Dd\text{-}Ee\text{-}Ff\text{-}Rr_m\text{-}Cyy$$

or a pharmaceutically or physiologically acceptable salt thereof, wherein,

Dd-Ee-Ff is Aa-Bb-Cc, Cc-Bb-Aa, Bb-Cc-Aa, Aa-Cc-Bb, Cc-Aa-Bb or Bb-Aa-Cc, wherein

Aa, is isoleucine, leucine or *tert*-leucine, or a structural or functional analogue thereof;

Bb is arginine, homoarginine or canavanine, or a structural or functional analogue thereof;

Cc is glutamic acid or aspartic acid, or a structural or functional analogue thereof;

Rr are each, independently, any amino acid residue or structural or functional analogues thereof;

n and m are, independently, 0-8, and the sum of n and m does not exceed eight; and,

Cy and Cyy are optional entities capable of forming a cyclic structure.

2. The tumor targeting unit according to claim 1, wherein Dd-Ee-Ff is Aa-Bb-Cc or Cc-Bb-Aa.

3. The tumor targeting unit according to any of claim 1 or 2, wherein the peptide is cyclic or forms part of a cyclic structure.

4. The tumor targeting unit according to claim 3, wherein the cyclic structure is formed through an amide, lactam or disulphide bond.

5. The tumor targeting unit according to any one of claims 1 to 4, wherein wherein one of Cy and Cyy is aspartic acid, glutamic acid or a structural or functional analogue thereof, and the other is lysine, ornithine or a structural or functional analogue thereof.

6. The tumor targeting unit according to any one of claims 1 to 4, wherein Cy and Cyy are cysteine or a structural or functional analogue thereof.

7. The tumor targeting unit according to any one of claims 1 – 6, wherein the sum of n and m is two to seven.

8. The tumor targeting unit according to claim 7, wherein the sum of n and m is two.

9. The tumor targeting unit according to any one of claims 1 – 6, wherein Rr_n and Rr_m are absent.

10. The tumor targeting unit according to any one of claims 1 – 8, wherein Rr is any amino acid residue, except histidine or lysine.

11. The tumor targeting unit according to claim 10, wherein Rr is selected from the group consisting of glycine, arginine and structural or functional analogues thereof.

12. The tumor targeting unit according to any one of claims 1 to 11, wherein Dd-Ee-Ff is IRE, LRE, LRD or ERI or a structural or functional analogue thereof.

13. The tumor targeting unit according to claim 6 having the formula CIREC (SEQ ID NO. 1) or CERIC (SEQ ID NO. 2).

14. The tumor targeting unit according to claim 5 having the formula selected from the group consisting of DIREK (SEQ ID NO. 3), DERIK (SEQ ID NO. 4) and being cyclic by virtue of a lactam bond between D and K.

15. The tumor targeting unit according to any one of claims 1 or 2 having the formula selected from the group consisting of IQLRD (SEQ ID NO. 5), IQLRDWGFIL (SEQ ID NO. 6), LRELS (SEQ ID NO. 7) and LRELSMGYFK (SEQ ID NO. 8).

16. The tumor targeting unit according to any of the previous claims, wherein the unit is derivatized, activated, protected, resin bound or other support bound.

17. A tumor targeting agent comprising at least one targeting unit of any of claims 1 to 16, directly or indirectly coupled to at least one effector unit.

18. The tumor targeting agent according to claim 17, wherein the effector unit is a directly or indirectly detectable agent or a therapeutic agent.

19. The tumor targeting agent according to claim 18, wherein the detectable agent comprises an affinity label, a fluorescent or luminescent label, a chelator, a metal complex, an enriched isotope, radioactive material or a paramagnetic substance.

20. The tumor targeting agent according to claim 19, wherein the detectable agent is a rare earth metal.

21. The tumor targeting agent according to claim 20, wherein the detectable agent is gadolinium.

22. The tumor targeting agent according to claim 18, wherein the therapeutic agent is selected from the group consisting of cytotoxic and cytostatic substances and radiation emitting substances.

23. The tumor targeting agent according to claim 22, wherein the therapeutic agent is selected from the group consisting of doxorubicin, daunorubicin, methotrexate or boron.

24. A diagnostic or pharmaceutical composition comprising at least one targeting unit according to any one of claims 1 to 16, or at least one targeting agent according to any one of claims 17 to 23.

25. Use of a targeting unit according to any one of claims 1 to 16, or a targeting agent according to any one of claim 17 to 23 for the preparation of a medicament for the treatment of cancer or cancer related diseases.

26. The use according to claim 25, wherein said cancer is a solid tumor.

27. The use according to claim 26, wherein the cancer is selected from the group consisting of carcinoma, sarcoma, melanoma or metastases.

28. A method for treating cancer or cancer related diseases, comprising providing to a patient in need thereof a therapeutically effective amount of a pharmaceutical composition according to claim 24.

29. The method according to claim 28, wherein said cancer or cancer related disease is a solid tumor.

30. The method according to claim 29, wherein said solid tumor is selected from the group consisting of carcinoma, sarcoma, melanoma or metastases.